BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Improvements and Asphalting to roads at Prakruthi layout in chowdeshwari ward no -02 of yelahanka sub division

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No-143, I.No-19.1)								
		Cum							
	RCC Drain								
	Prakruthi Layout								
	Cross Rd -1		1	134.00	1.10	1.10	162.14		
	6th cross		1	63.00	1.00	1.05	66.15		
	For RCC Culvert		5	5.50	1.40	1.10	42.35		
							270.64	215.28	**58263.38**
	Basic Rate Rs.=	130.00							
	Add 6% A.W Rs. =	7.80							
	Sub Total =	137.80							
	8Km Lead, Loading and Unloading =(2*1.28*8)+57	77.48							
	Total Rate Rs. =	**215.28**							
2	KSRRB M2100-10. Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18)								
	RCC Drain	Cum							
	Prakruthi Layout								
	Cross Rd -1		1	134.00	1.10	0.15	22.11		
	6th cross		1	63.00	1.00	0.15	9.45		
	For RCC Culvert		5	5.50	1.40	0.15	5.78		
							37.34	5421.90	**202426.64**
	Basic Rate Rs.=	5115.00							
	Add 6% A.W Rs. =	306.90							
	Total Rate Rs. =	**5421.90**							
3	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. With 20mm and sown size granite metal course aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compcted for walls and bottom including centring shuttering cost of material HOM of machinary curing etc., complete execluding cost of steel as per MORTH specification no. 1500, 1700, 2200 including cost of material labour HOM complete as per specification. (P.No.271, I.No.37.59.2 of PW, P&IWTD S.R 2018-19)								
	For RCC Drain	Cum							
	Bottom slab								
	Prakruthi Layout								
	Cross Rd -1		1	134.00	0.90	0.15	18.09		
	6th cross		1	63.00	0.75	0.15	7.09		
	side walls								
	Prakruthi Layout								
	Cross Rd -1		2	134.00	0.15	0.60	24.12		
	6th cross		2	63.00	0.15	0.60	11.34		
							60.64		
	For RCC Culvert								
	Raft		5	5.50	1.20	0.20	6.60		
	side walls		10	5.50	0.20	0.60	6.60		
							13.20		

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
					Net Qty.		73.84	7070.20	522045.89
	Basic Rate Rs.=	6670.00							
	Add 6% A.W Rs. =	400.20							
	Total Rate Rs. =	**7070.20**							
4	KSRRB - M2300-14: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.MORTH Specification No. 1600 & 2200 for TMT bars Fe 500. (P.No.239, I.No.29.29.2 of PW, P&IWTD S.R 2018-19)								
	Considering steel For Drain @ 60 kg / cum	Tonne		60.64	0.060	--	3.64		
	Considering steel For Culvert @ 90 kg / cum			13.20	0.090	--	1.19		
							4.83	73992.24	**357105.05**
	Basic Rate Rs.=	69804.00							
	Add 6% A.W Rs. =	4188.24							
	Total Rate Rs. =	**73992.24**							
5	Providing and fixing RCC precast cover slab of 100mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	For drain cover slab	Sqm							
	Prakruthi Layout								
	Cross Rd -1		1	134.00	0.90	--	120.60		
	6th cross		1	63.00	0.75	--	47.25		
							167.85	2337.00	**392265.45**
6	Providing and fixing RCC precast cover slab of 250mm thick made out of CC 1:2:4 and jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	For Culvert Slabs	Sqm	5	5.50	1.20	--	**33.00**	5418.00	**178794.00**
7	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 8km lead (I No-19.14,P No-143)								
	For Asphalt Road	Cum							
	Prakruthi Layout								
	Cross Rd -1		1	134.00	5.00	0.35	234.50		
							234.50	63.94	**14993.93**
	Basic Rate Rs.=	41.00							
	8Km Lead, Loading and Unloading =(2*1.28*8)	20.48							
	Add 6% A.W Rs. =	2.46							
	Total Rate Rs. =	**63.94**							
8	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	For Asphalt Road	Cum							
	Prakruthi Layout								
	Cross Rd -1		1	134.00	5.00	0.15	100.50		
							100.50	1994.92	**200489.46**
	Basic Rate Rs.=	1882.00							

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
	Add 6% A.W Rs. =	112.92							
	Total Rate Rs. =	**1994.92**							
9	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	For Asphalt Road	Cum							
	Prakruthi Layout								
	Cross Rd -1		1	134.00	5.00	0.250	167.50		
							167.50	2001.28	**335214.40**
	Basic Rate Rs.=	1888.00							
	Add 6% A.W Rs. =	113.28							
	Total Rate Rs. =	**2001.28**							
10	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	For Asphalt Road	Sqm							
	Prakruthi Layout								
	Cross Rd -1		1	134.00	5.00		670.00		
							670.00	28.62	**19175.40**
	Basic Rate Rs.=	27.00							
	Add 6% A.W Rs. =	1.62							
	Total Rate Rs. =	**28.62**							
11	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)								
	For Asphalt Road	Cum							
	Prakruthi Layout								
	Cross Rd -1		1	134.00	5.00	0.05	33.50		
							33.50	6597.44	**221014.24**
	Basic Rate Rs.=	6224.00							
	Add 6% A.W Rs. =	373.44							
	Total Rate Rs. =	**6597.44**							
12	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	For Asphalt Road	Sqm							
	Prakruthi Layout								
	Cross Rd -1		1	134.00	5.00		670.00		
							670.00	12.72	**8522.40**
	Basic Rate Rs.=	12.00							
	Add 6% A.W Rs. =	0.72							
	Total Rate Rs. =	**12.72**							
13	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)(P.No-171,I No-21.78.12)								
	For Asphalt Road	Cum							

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
	Prakruthi Layout								
	Cross Rd -1		1	134.00	5.00	0.03	20.10		
							20.10	7753.90	**155853.39**
	Basic Rate Rs.=	7315.00							
	Add 6% A.W Rs. =	438.90							
	Total Rate Rs. =	**7753.90**							
14	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	For Asphalt Road	Sqm							
	Prakruthi Layout								
	Cross Rd -1		2	134.00	0.10		26.80		
							26.80	454.74	**12187.03**
	Basic Rate Rs.=	429.00							
	Add 6% A.W Rs. =	25.74							
	Total Rate Rs. =	**454.74**							
								Sub Total 1 Rs.	**2678350.66**
									321402.08
	Add GST @ 12%							Sub Total 2 Rs.	**2999752.74**
									247.26
	Miscellaneous & Rounding off							Total Rs.	**3000000.00**

CERTIFICATE:

1 The work spot has been inspected by me and the work is found to be necessary.
2 The estimate is prepared as per PW, P&IWTD S.R Bangalore circle for the year 2018-2019.
3 The Provisions made in the estimate are quite necessary and adequate.
4 The area comes with in the BBMP limits.

Assistant Engineer
Ward 02
BBMP

Assistant Executive Engineer
Yelahanka Sub Division
BBMP

Executive Engineer
Yelahanka Division
BBMP

Administrative Approval

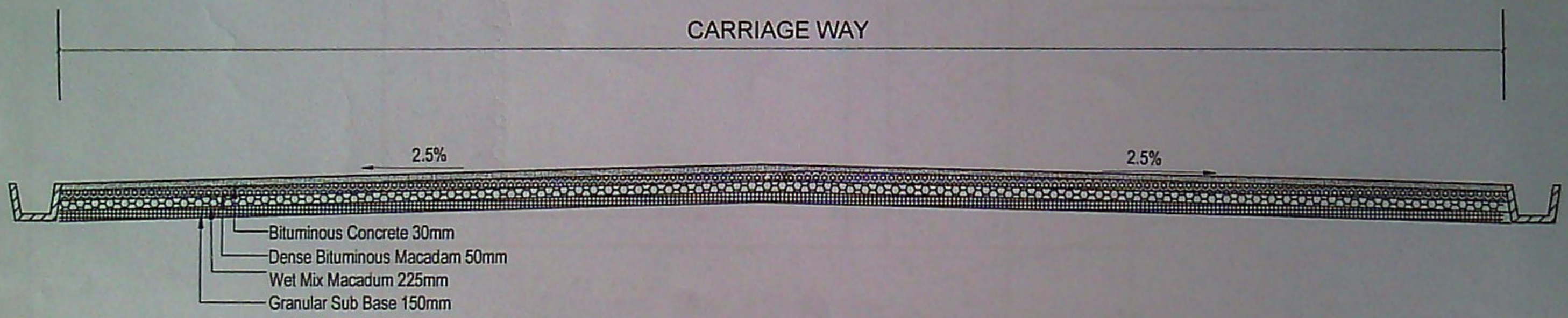
Accorded For Rs.30.00lakhs
Head of A/C..P-3726...
CER NO :...178..... Dt:..27.03.2020

IA ACE (NK)

Technical Sanction

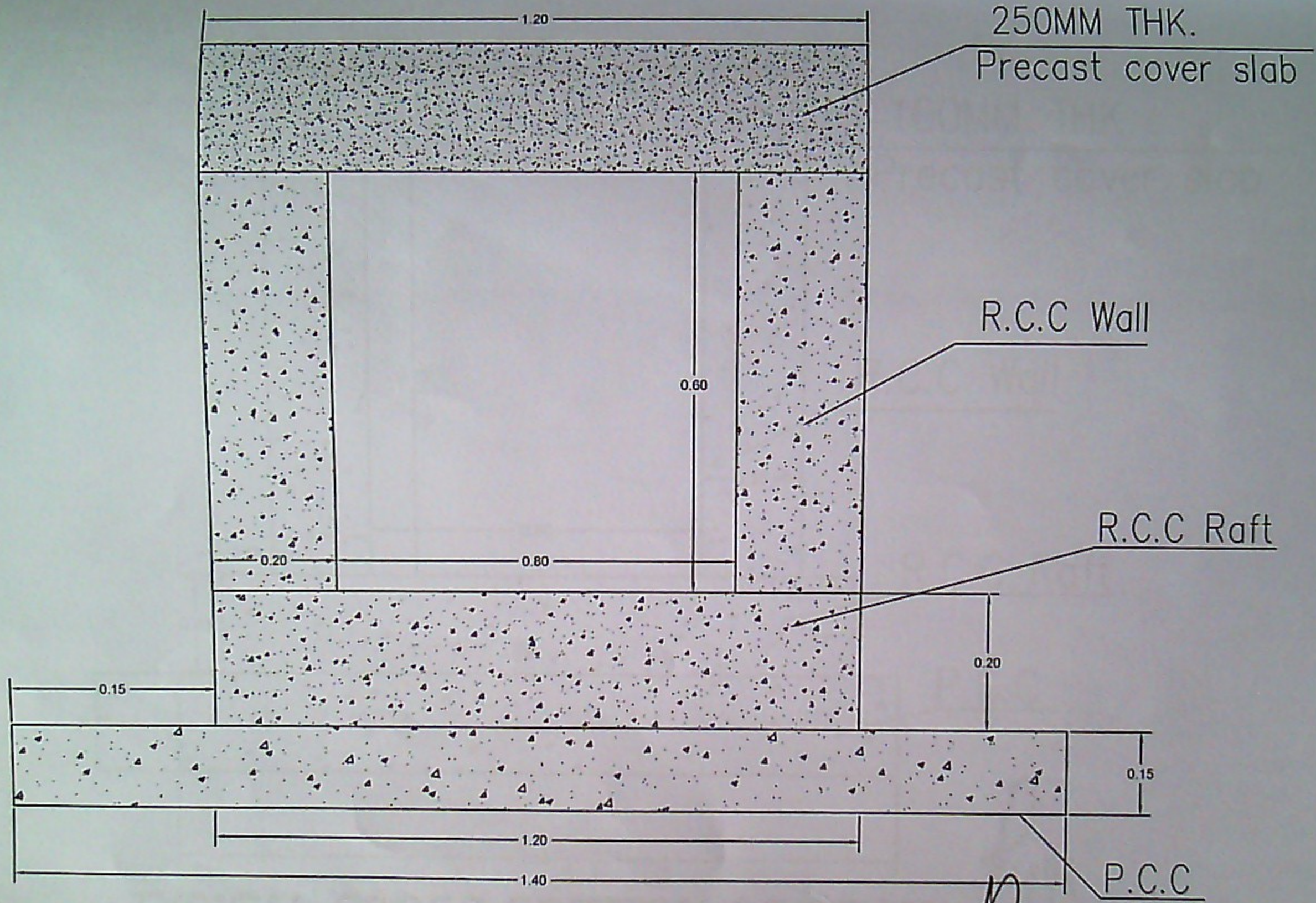
Accorded For Rs.30.00lakhs
Head of A/C..P-3726...
CER NO :...236..... Dt:27.03.2020

IA CE (NK)

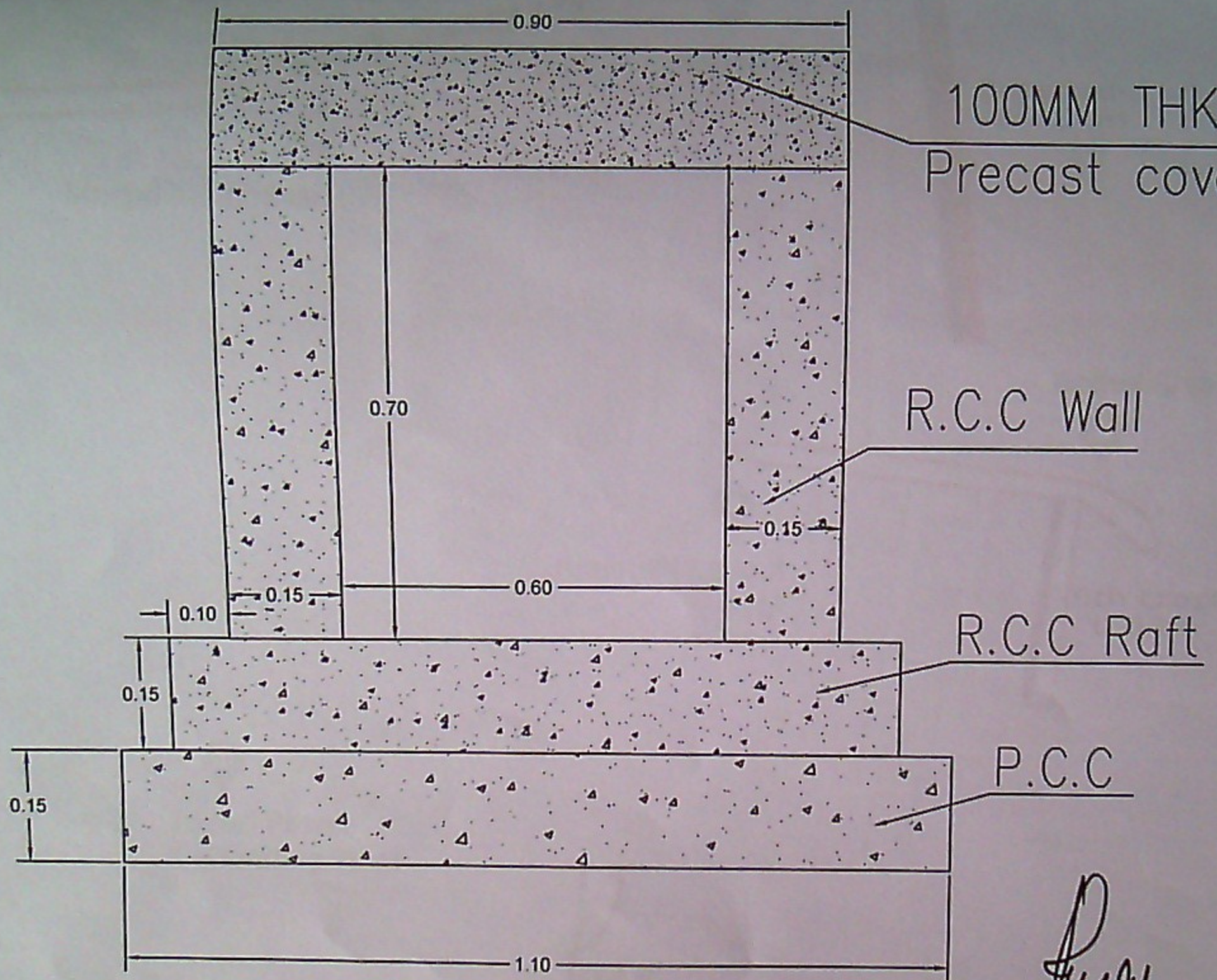


Proposed typical Cross section of Asphalt Road - Ward Road

AE-02



TYPICAL CROSS SECTION OF CULVERT



TYPICAL CROSS SECTION OF DRAIN

AE-02

Search this area

PRAKRUTHI LAYOUT

Samatva

Kenchanahalli main rd

Masjid Kenchanahalli

Kanathanda Kush

Cross rd-1
L-134m

Bethel Greens

Prakruthi Layout
ಪ್ರಕೃತಿ
ಲೇಔಟ್

6th cross rd
L-63m

Diesel Power
Generating Plant

Yelahanka Lake View Rd

ASPHALT ROAD

RCC DRAIN

CLIENT: BRUHAT BANGALORE MAHANAGARA PALIKE	CONSULTANT:- Silicon Consulting Engineers #S1317, 4th CROSS BEL 2nd STAGE BHARATH NAGAR BANGALORE 560 091 E-mail siliconcivilengineers@gmail.com	Assitante Engineer	Assitante Executive Engineer	Executive Engineer	Improvements to roads and drains at Prakruthi layout in Chowdeshwari ward no 02 of Yelahanka sub Division.	Date Dwg no: Rev: R0